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(71) Applicant
The Mead Corporation (USA-Ohio),
Courthouse Plaza NE, Dayton, Ohio 45463, United States
of America

(72) Inventor
Rolf Muller

(74) Agent and/or Address for Service
J. M. Hepworth & Co., Furnival House, 14/18 High Holborn,
London WC1V 6DE

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(54) Wrap-around packages

(57) A package (p) comprises a tray-like base (5) in which for example bottles (8) are accommodated and a separately formed top cover (c) having side wall panels and base panels located in overlapping relationship with the sides and base of the tray-like base. Cut lines define tear strips (38,44) to detach upper portions of the top cover from the tray-like base to open the package such that portions of the side wall panels of the top cover and its base panels remain attached to the tray-like base.

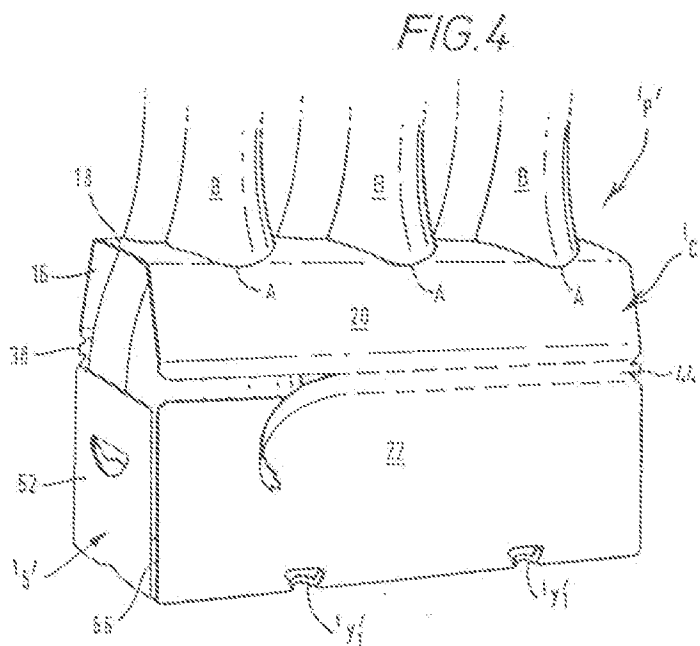


FIG. 1

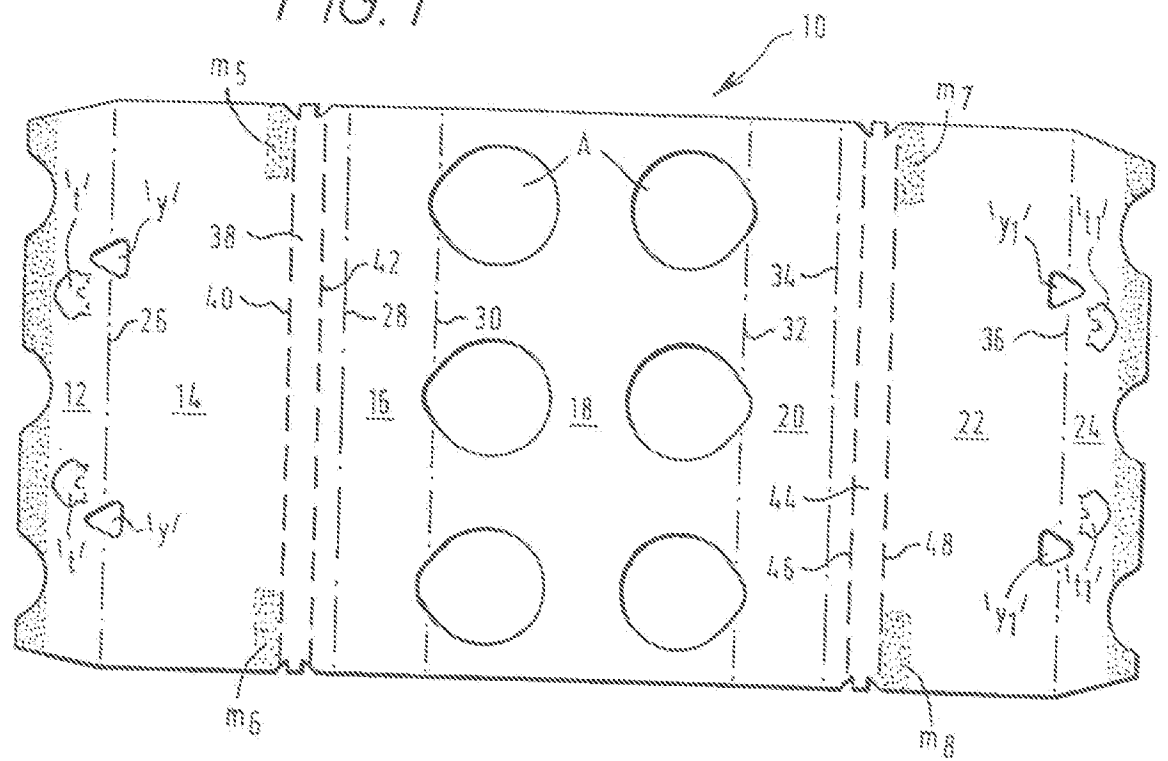
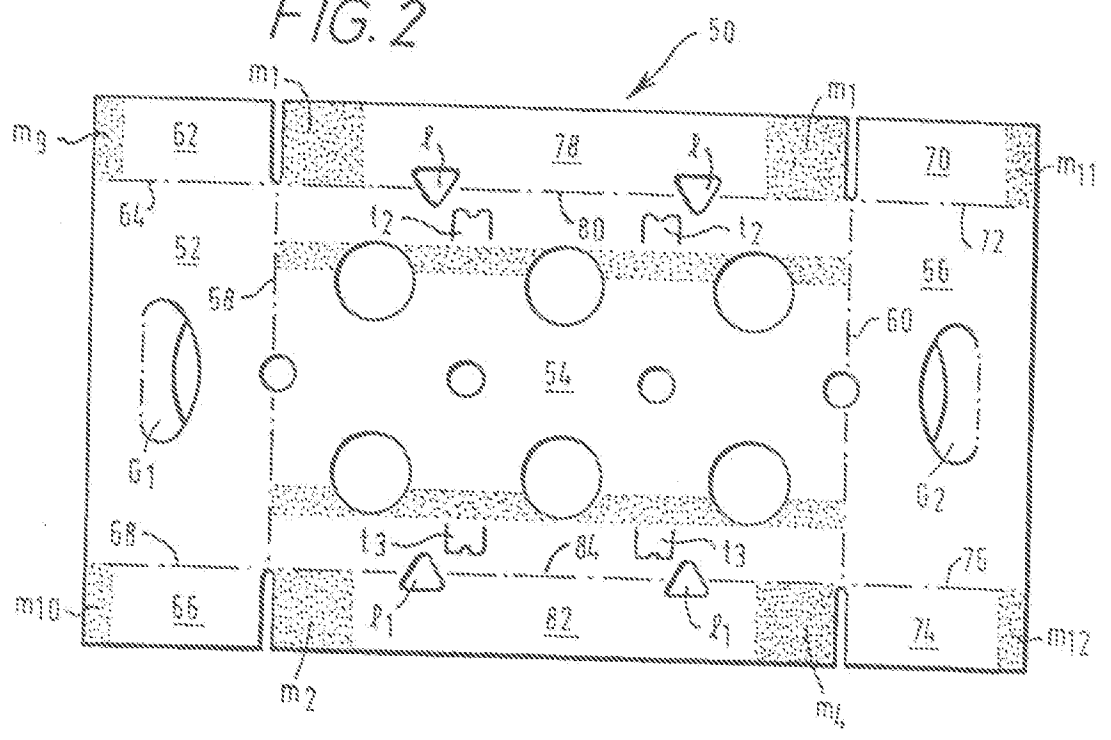


FIG. 2



SPECIFICATION

Package comprising traybase and top cover

5 This invention relates to a package comprising a tray-like base in which produce is accommodated and a top cover having side wall panels and base panels located in overlapping relationship with the sides and base, respectively, of the tray-like base.

10 Packages of this kind consisting of a tray made from corrugated board with a U-shaped top cover which is connected to the tray by means of gluing to the side of the tray are well known.

The present invention seeks to reduce the amount of material use for the package to a minimum consistent with adequate strength but also to provide a larger area of good quality material for better printing and thus more effective advertising. Further, the top-cover and tray base of the package are registered with improved accuracy over known constructions and can be secured together by the use of cold glue rather than the more costly hot-melt glue which generally is used.

One aspect of the invention provides a package comprising a tray-like base in which produce is accommodated and a top cover having side wall panels and base panels located in overlapping relationship with the sides and base, respectively of the tray-like base, means being provided to detach upper portions of the top cover from the tray-like base to open the package such that portions of the side wall panels of the top cover and its base panels remain attached to the tray-like base.

Another aspect of the invention provides a package comprising a tray-like base in which product is accommodated and top cover having side wall panels and base panels located in overlapping relationship with the sides and base, respectively, of the tray-like base, means being provided for securing the base panels of the tray cover to a bottom panel of the tray-like base.

An embodiment of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:-

45 *Figure 1* is a plan view of a blank for providing a top cover of the package according to the invention;

Figure 2 is a plan view of a blank for providing a tray base of the package according to the invention;

Figure 3 is a perspective view of a lower part of the complete package as seen from below; and

Figure 4 is a perspective view of the complete package as seen from an end and one side thereof.

Referring first to *Figure 1*, there is shown a blank 10 for providing a top cover 'a' of a package 'p'. The blank is formed from an elongate sheet of paperboard of similar foldable sheet material and comprises, in series, a first base panel 12; a first lower side wall panel 14; a first upper side wall panel 16; a top panel 18; a second upper side wall panel 20; second lower side wall panel 22 and a second base panel 24 hinged one to the next along transverse fold lines 26, 28, 30, 32, 34 and 36 respectively.

The first upper and lower side wall panels are separable from one another by a tear-away strip 38 defined by transverse cut lines 40 and 42, respectively. Likewise, the second upper and lower side wall panels are separable from one another by a tear-away strip 44 defined by transverse cut lines 46 and 48, respectively.

Top panel 18 is formed with two parallel rows of similar apertures 'A' through which top portions of articles e.g. the necks of bottles 'B' extend when the top cover is applied to the tray base of the package.

The first base panel 12 is provided with a pair of spaced male locking tabs 'Y' and similarly the second base panel 24 also is provided with a pair of male locking tabs 'Y'. Apertures 'Y' are formed at spaced locations along transverse fold lines 26 and 36 and are adapted to receive tightening elements of a packaging machine to tighten the top cover into its correct position relative to a tray base 'S' (*Figures 3 and 4*).

Referring now to *Figure 2* of the drawings, the tray base 'S' of the package is formed from an elongate blank 50 of foldable sheet material such as 'E'-flute board. The blank comprises a first end wall 52, a bottom panel 54 and a second end wall 56 hinged one to the next along transverse fold lines 58 and 60, respectively.

An end flap is hinged at one side edge of end wall 52 along longitudinal fold line 64 and a similar end flap 66 is hinged to the opposite side edge of the end wall 52 along longitudinal fold line 68. Likewise, end flap 70 is along longitudinal fold line 72 and a similar end flap 74 is hinged to the opposite side edge of the end wall 56 along longitudinal fold line 76.

Each of the end walls 52 and 56 is formed with a hand gripping aperture G', G'', respectively to facilitate portage of the package.

A side flap 78 is hinged to one side edge of bottom panel 54 along longitudinal fold line 80 and a similar side flap 82 is hinged to the opposite side edge of bottom panel 54 along longitudinal fold line 84.

A pair of spaced locking apertures defined by retaining tabs 'Y' is provided in the bottom panel 54 adjacent fold line 80 and a further pair of spaced locking apertures defined by retaining tabs 'Y' is provided in the bottom panel 54, adjacent fold line 84. Locking apertures 'Y' are provided at spaced locations along fold line 80 and similar locking apertures 'Y' are provided at spaced locations along fold line 84.

In order to form the package p, first the tray is erected and filled with bottles B before entering a top cover applicator. The tray blank 50 is conveyed by conveyor elements which engage openings in the base panel 54. Glue (which may be cold) is applied to the undersides of those areas of the blank shown in strippling in *Figure 2*. The side flaps 78 and 82 are erected about fold lines 80 and 84 into an upright position, whereafter the end walls 52 and 56 are erected about fold lines 58 and 60 into upright position and flap 62 and 66 are folded about fold lines 64 and 68 respectively, into over-

lapping relationship with respective ones of the side flaps 78 and 82 so that end flaps 62 and 66 are adhered to external glued areas m and m' respectively.

5 With the tray thus erected and loaded with e.g. bottles, the top cover 'c' is then applied so that neck portions of the bottles are received one in each of the apertures 'A'. The side walls of the top cover are then folded downwardly into overlapping
10 relationship with the side flaps 78 and 82 of the tray base. In so doing, the areas of stripping $m5$ - $m8$ (Figure 1) are adhered to the glued areas $m8$ - $m12$, respectively of the end flaps. The top cover is then tightened by machine elements which enter
15 the tightening apertures 'r' and 'r' and the registering apertures 'T' and 'T' of the tray base. The top cover and tray base are accurately located with respect to one another by the tightening elements so that the top can be interlocked to the base.

20 The first and second base panels 12, 24 of the top cover are then folded underneath the tray base into overlapping relationship with the base panel 54, whereupon the areas of stripping (Figure 1) $m13$ and $m14$ of the top cover are adhered to the
25 glued areas $m15$, $m16$, respectively, on the underside of base of base panel 54 as shown in Figure 2. The male locks 'l', 'l1' are then interlocked with the registering locking apertures '12', '13' respectively so that the top cover is both glued and locked to
30 the tray base as shown in Figures 3 and 4.

Referring to Figure 4, in order to open the package α , the top panel and upper side wall panels of the top cover are removed by tearing off the tear-away strips 38 and 44 thereby exposing the contents of the package. Thus the lower side walls and
35 base panels of the top cover are left remaining attached to the tray base.

CLAIMS

40 1. A package comprising a tray-like base in which product is accommodated and a top cover having side wall panels and base panels located in overlapping relationship with the sides and base,
45 respectively of the tray-like base, means being provided to detach upper portions of the top cover from the tray-like base to open the package such that portions of the side wall panels of the top cover and its base panels remain attached to the
50 tray-like base.

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